

ESB

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **34**
- SRM **10.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **8 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.2 kg (79.2%)	80 %	5
Grain	viking malt cookie	0.5 kg (9.4%)	80 %	5
Grain	Pszeniczny	0.5 kg (9.4%)	85 %	4
Grain	Jęczmień palony	0.1 kg (1.9%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	60 min	5.1 %
Boil	Fuggles	35 g	30 min	4.5 %
Boil	Fuggles	35 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	60 ml	Danstar